NHSN Group Users Meeting

February 23, 2022

Welcome from the SHARP Unit!

- Brenda Brennan, HAI Coordinator/SHARP Unit Manager
- Anne Haddad, Antimicrobial Stewardship Coordinator
- Charde Fisher, Health Educator
- Nikki McGuire, Infection Prevention Nurse Consultant
- Sara McNamara, Antimicrobial Resistance Epidemiologist
- Sarmed Rezzo, Long-term Care Epidemiologist
- Jane Rogers, Infection Prevention Nurse Consultant
- Elli Stier, NHSN Epidemiologist

NHSN Updates

2021 Annual Survey

Due March 1, 2022

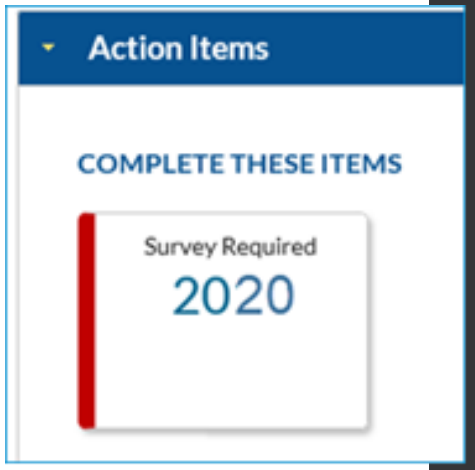
Please see the following guidance documents for further instructions on how to add, edit, and find the PSC annual surveys:

https://www.cdc.gov/nhsn/pdfs/surveys/add-survey-508.pdf

https://www.cdc.gov/nhsn/pdfs/surveys/find-edit-survey-508.pdf

Accessing Annual Facility Surveys

Annual facility surveys can be found in the NHSN application by looking under your facility's list of alerts and selecting the 2021 Survey or by using the left navigation banner and selecting "Add" found in the "Surveys" tab:



Patient Safety Component 2022 Updates

All significant changes are listed here:

2022 NHSN Manual Summary of Changes (cdc.gov)

Be sure to check out the link above for all significant changes to each HAI chapter. Includes clarifications, additions and deletions.

Patient Safety Component 2022 Updates

Chapter 1: NHSN Overview

Addition: Information about COVID-19 vaccination reporting through the HPS module added to chapter.

Patient Safety Component 2022 Updates

Chapter 16: Key Terms

Addition:

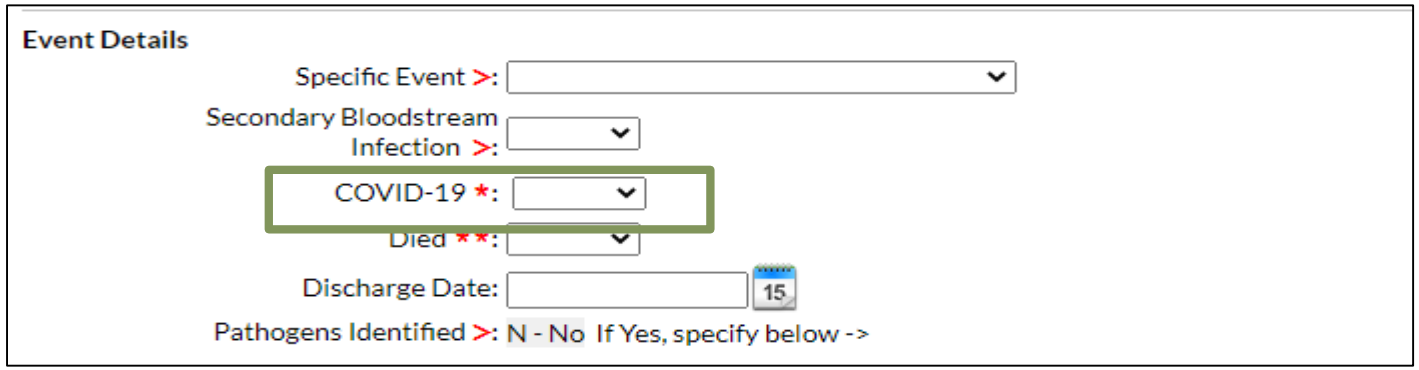
- **Added definition for Non-Bedded Location** to be defined as "A patient care location that does not house patients overnight; therefore, for NHSN reporting purposes a device associated HAI event cannot be attributed to the location since there are no patient or device day counts collected." Note: There are non-bedded locations that are considered inpatient non-bedded locations such as the OR, inpatient dialysis, interventional radiology, or the cardiac catherization lab.
- **Added definition for SSI Surveillance Period:** "The timeframe following an NHSN operative procedure for monitoring and identifying an SSI event. The surveillance period is determined by the NHSN operative procedure category (for example, COLO has a 30-day SSI surveillance period and KPRO has a 90-day SSI surveillance period, see Table 2 within the SSI protocol). Superficial incisional SSIs are only followed for a 30-day period for all procedure types. Secondary incisional SSIs are only followed for a 30-day period regardless of the surveillance period for the primary site."

Clarification:

- **Definition for Device-associated Infections updated** for consistency with those provided in Chapter 6 and 7: "For a patient who has a ventilator or urinary catheter in place prior to inpatient admission, the device day count that determines device–association begins with the admission date to the first inpatient location."
- **Gross Anatomical Exam updated** to be consistent with the MISC FAQ and SSI FAQ.

COVID-19 Event Details option

- COVID-19 reporting of all HAI events is now required for 2022 reporting
- Table of Instructions are updated to reflect new requirement
- Event reporting form is updated with required marker (*)
- *"To reduce subjectivity, the lab finding of the most recent COVID-19 viral test prior to or on the date of HAI is used for response. NHSN did not include in our definition a length of time for the patient to be considered 'confirmed'; however, we focus strictly on the current hospitalization with response based on the lab test available within the current patient record."*
  - *"Answer COVID-19 as 'yes' if the patient is lab test confirmed COVID-19 on the date of event. Our initial thought is that many patients will undergo repeat testing post treatment that would move them from 'confirmed' to negative COVID-19 status."*
  - *"If the most recent lab finding prior to or on the date of HAI is 'negative', answer COVID-19 as 'no'. "*



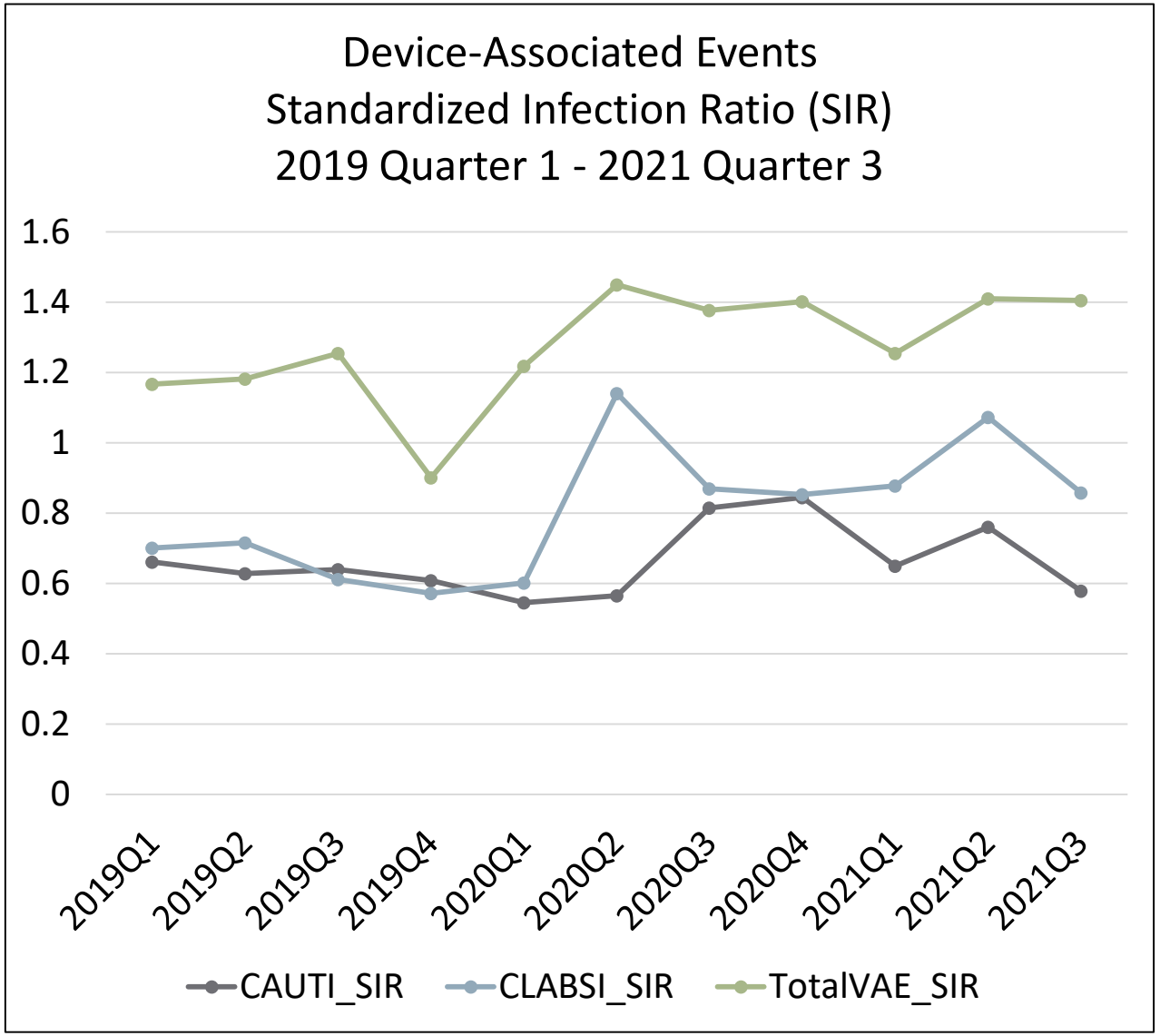
Updated COVID-19 Data Tracking Worksheet 2022

- The vaccination data tracking worksheets for the COVID-19 Vaccination Modules have been updated (January 2022)
- Updated vaccination data tracking worksheets can be found on the following CDC NHSN webpages under the “Data Tracking Worksheets” section:

  Inpatient and dialysis facilities reporting COVID-19 vaccination data on healthcare personnel:

  Non-LTC Weekly HCP COVID-19 Vaccination

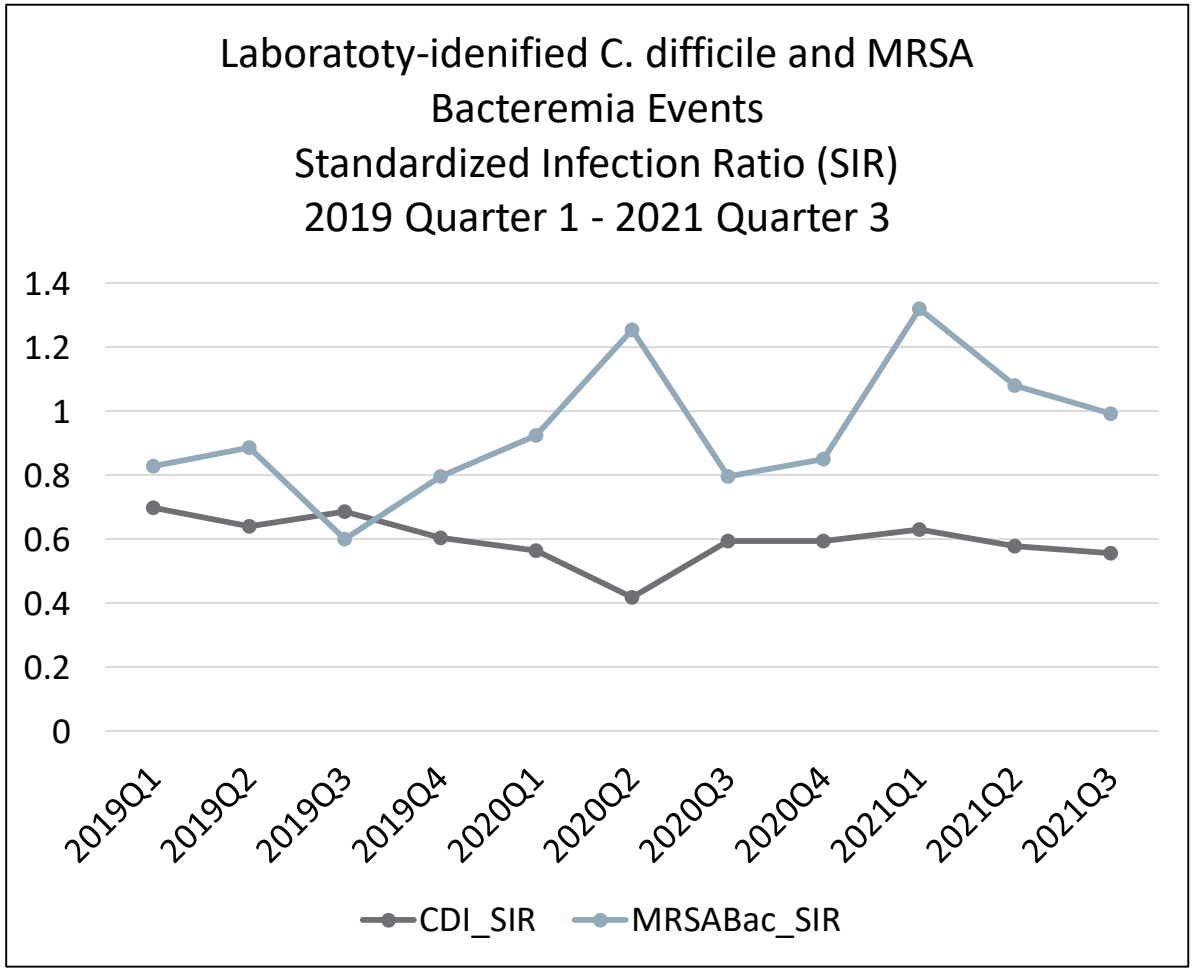
NHSN Surveillance Data: Device-Associated Events



	CAUTI		CLABSI		Total VAE	
summary YQ	Infection Count	SIR	Infection Count	SIR	Infection Count	SIR
2019Q1	130	0.661	116	0.701	401	1.167
2019Q2	118	0.628	117	0.716	378	1.181
2019Q3	120	0.64	99	0.611	369	1.254
2019Q4	115	0.608	92	0.572	269	0.9
2020Q1	82	0.545	80	0.601	343	1.218
2020Q2	76	0.565	124	1.141	438	1.45
2020Q3	157	0.815	142	0.869	380	1.376
2020Q4	181	0.844	150	0.852	495	1.401
2021Q1	130	0.65	145	0.878	365	1.255
2021Q2	161	0.761	187	1.072	541	1.409
2021Q3	115	0.578	145	0.858	399	1.405

Data for Acute Care Hospitals only. Data are subject to change. Data current as of February 18, 2022.

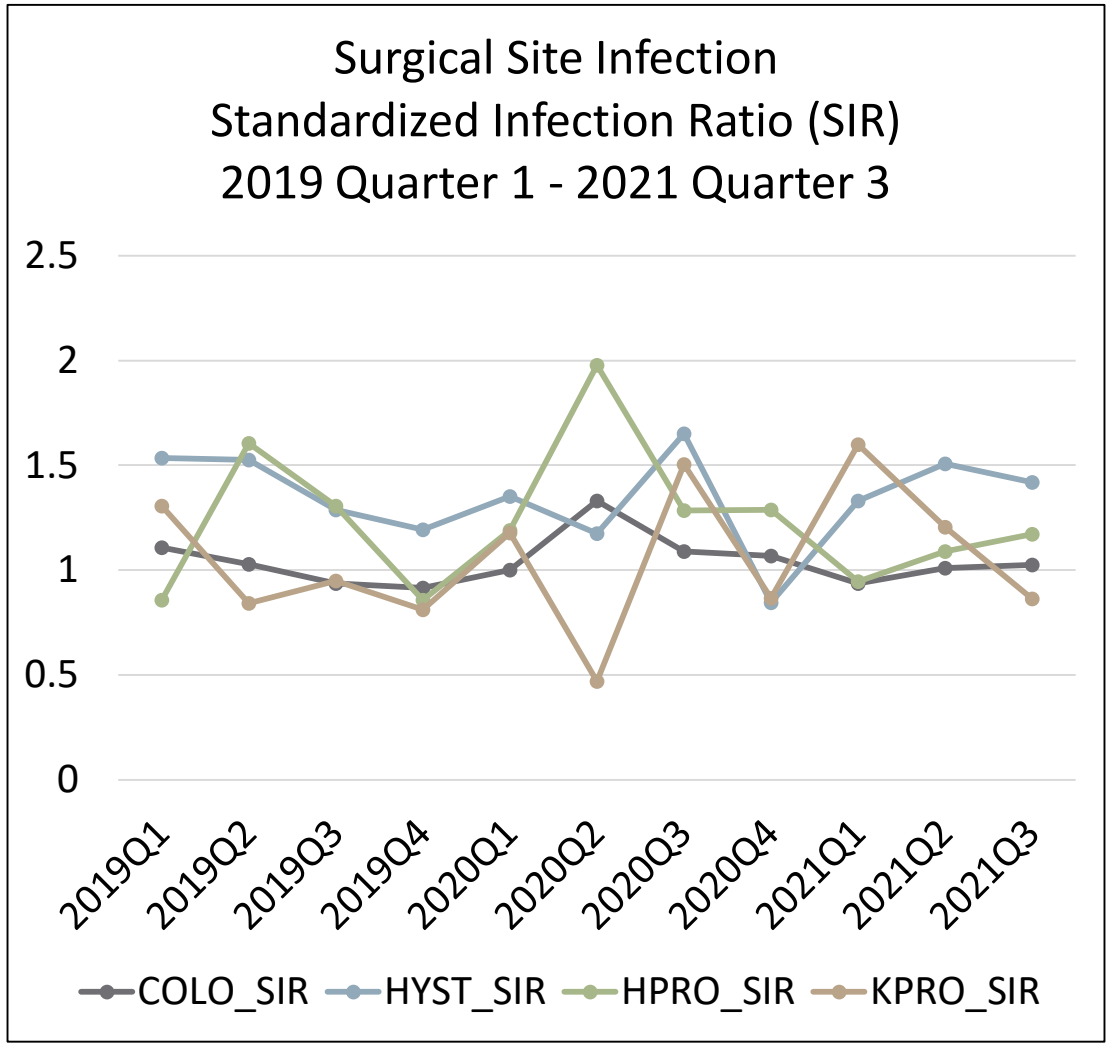
NHSN Surveillance Data: MDRO and CDI LabID Events



	CDI Lab ID		MRSA Bac Lab ID	
summary YQ	Infection Count	SIR	Infection Count	SIR
2019Q1	568	0.698	70	0.828
2019Q2	527	0.64	71	0.887
2019Q3	531	0.687	48	0.601
2019Q4	433	0.604	59	0.796
2020Q1	298	0.564	62	0.925
2020Q2	179	0.419	65	1.255
2020Q3	402	0.595	62	0.796
2020Q4	415	0.595	69	0.851
2021Q1	419	0.63	107	1.321
2021Q2	421	0.579	90	1.081
2021Q3	379	0.557	80	0.993

Data for Acute Care Hospitals only. Data are subject to change. Data current as of February 18, 2022.

NHSN Surveillance Data: Procedure-Associated Events



	COLO		HYST		HPRO		KPRO	
summary YQ	Infection Count	SIR	Infection Count	SIR	Infection Count	SIR	Infection Count	SIR
2019Q1	72	1.108	26	1.536	19	0.858	21	1.306
2019Q2	71	1.027	28	1.525	36	1.606	14	0.843
2019Q3	65	0.936	23	1.289	31	1.306	15	0.948
2019Q4	63	0.914	22	1.194	21	0.857	15	0.811
2020Q1	48	1	16	1.352	20	1.19	14	1.178
2020Q2	50	1.329	9	1.174	23	1.976	3	0.469
2020Q3	70	1.09	26	1.65	31	1.285	23	1.505
2020Q4	70	1.068	14	0.844	27	1.287	12	0.866
2021Q1	60	0.937	20	1.329	19	0.945	19	1.599
2021Q2	63	1.009	22	1.508	21	1.09	13	1.205
2021Q3	64	1.024	21	1.418	24	1.172	9	0.862

Data for Acute Care Hospitals only. Data are subject to change. Data current as of February 18, 2022.

Save the Date!
2022 Virtual NHSN Training

The Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN) will hold 2022 Virtual NHSN Training: Patient Safety, Outpatient Procedure, and Neonatal Component Surveillance and Analytics on **March 22 – 24, 2022**.

Virtual training event will feature:

- live presentations
- pre-recorded training videos for self-paced viewing
- opportunities for Q&A.

Training topics include how to identify, report, and analyze:

- Catheter-associated Urinary Tract Infections (CAUTI)
- Central Line-associated Blood Stream Infections (CLABSI), Secondary Bloodstream Infection (BSI) and Site-Specific Infections
- Surgical Site Infections (SSI)
- MRSA Bacteremia and C. difficile LabID events
- Pneumonia Events, Ventilator-associated Events (VAE), and Pediatric Ventilator-associated Events (PedVAE)
- Antimicrobial Use and Resistance module. Additional topics include surveillance and analysis for the Outpatient Procedure Component, the Late-Onset Sepsis and Meningitis module of the new Neonatal Component, and the NHSN Annual Survey.

Finalized agenda and information on registration to follow.

SHARP Updates

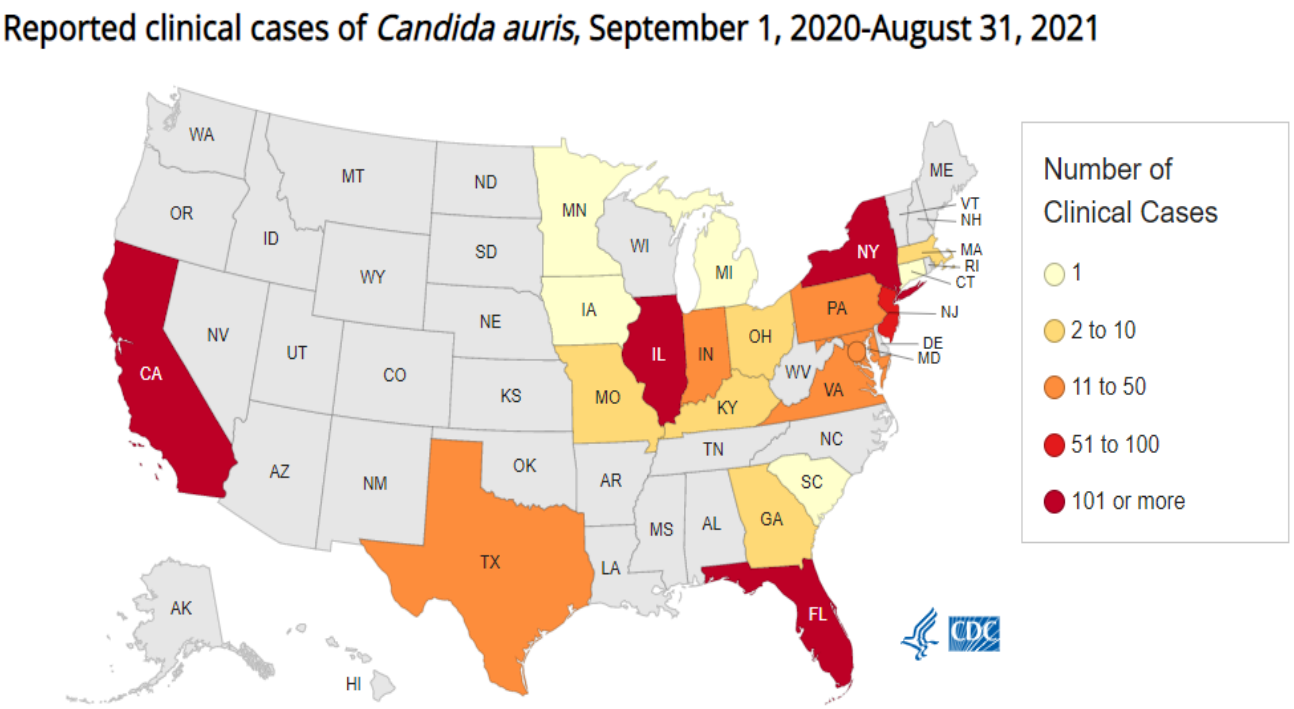
Targeted MDRO Surveillance Updates

SHARP Unit

Feb 2022

Candida auris is a Public Health Concern

- Emerging multidrug-resistant yeast
- It can cause serious, invasive infections, but also colonizes the skin
- It can cause outbreaks in healthcare settings
- Can be challenging to identify in the laboratory

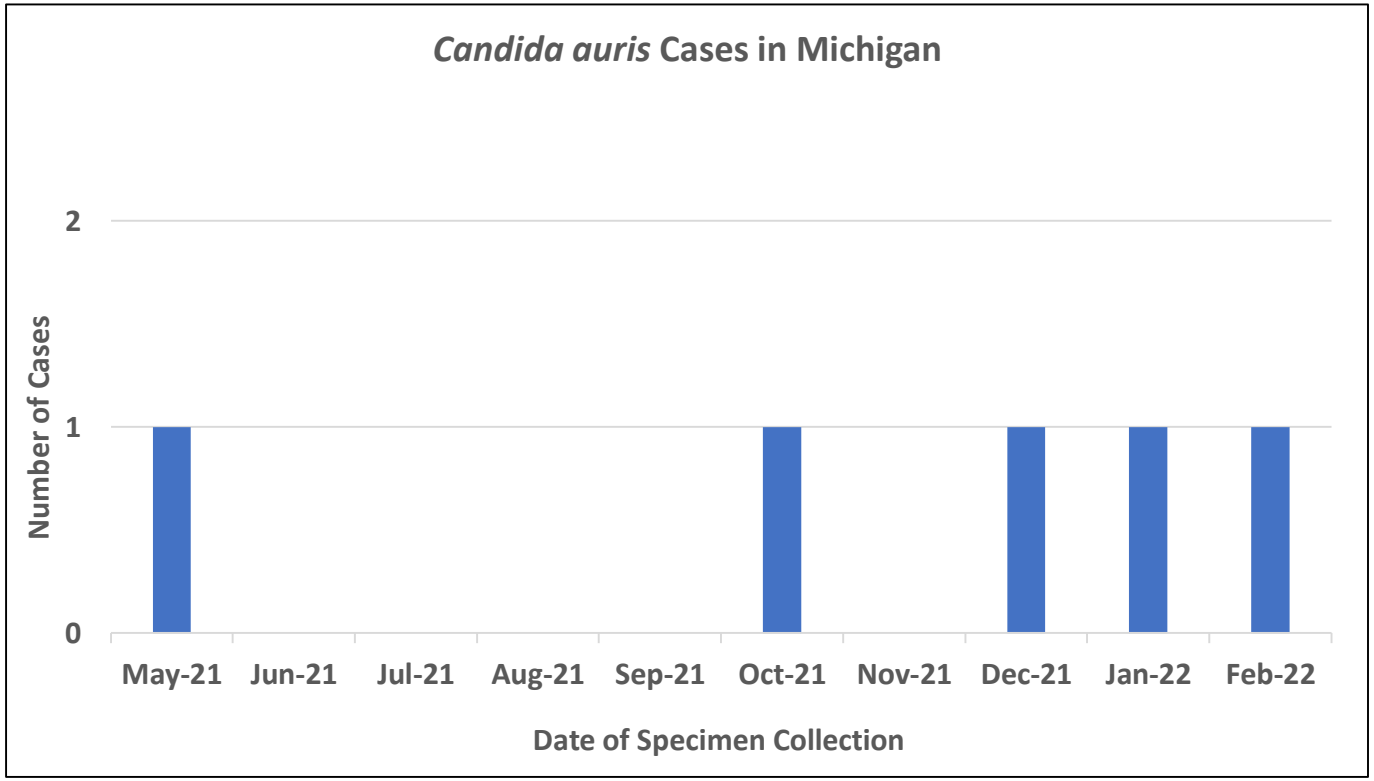


***First Michigan case detected in May 2021**

https://www.cdc.gov/fungal/candida-auris/index.html

Candida auris Surveillance in Michigan

- 5 cases to-date
  - 4 clinical cases
  - 1 colonization case
- 2 most recent cases are epi-linked



Clinical Characteristics of *Candida auris* Cases

#	Case	Source	Comorbidities	Recent Healthcare Exposures					Travel	
				ACH	LTAC	IP Rehab	SNF	OP	Recent	Remote
1	76, M	Ear Drainage	Chronic recurrent ear infections, Multiple myeloma, CAD, HTN	√				√		√
2	73, M	Urine	DM, COVID-19 assoc. VDRF s/p trach, PEG, CVC, UC, decubitus wounds	√	√				√	
3	64, M	Urine	CVA, cardiac arrest, VDRF s/p trach, PEG, decubitus wounds	√	√	√	√			
4	54, M	Foot Wound	CVA, intracranial bleed s/p craniotomy, CRF w/trach, PEG, chronic foot & decubitus ulcers	√			√			
5	62, M	Axilla/Groin	VDRF, Bilateral pulmonary emboli, COPD, asthma, DM w/neuropathy, chronic ulcers	√			√			

Candida auris Case Containment Response

#	Notification to Providers	Infection Prevention Recommendations			Laboratory Surveillance			Contact Screening		ICAR
		Contact/ Enhanced Barrier	Hand Hygiene	Disinfection (List P)	Retrospective	Prospective	Enhanced Yeast ID	Roommates	Other Patient Contacts	
1	1 ACH, 3 OP, LHD	√	√	√	√	√	√	√ - NA		√
2	LHD									
3	3 ACH, 1 LTAC, 1 IP Rehab, 5 SNF, LHD	√	√	√	√	√	√	√ - NA	√ - 98 contacts negative	√
4	2 ACH, 1 SNF, LHD	√	√	√	√	√	√	√ - 1 positive	√ - Pending	√ - Pending
5	2 ACH, 1 SNF, LHD	√	√	√	√	√	√	√ - prior case	√ - Pending	√ - Pending

Infection Prevention Guidance for *Candida auris*

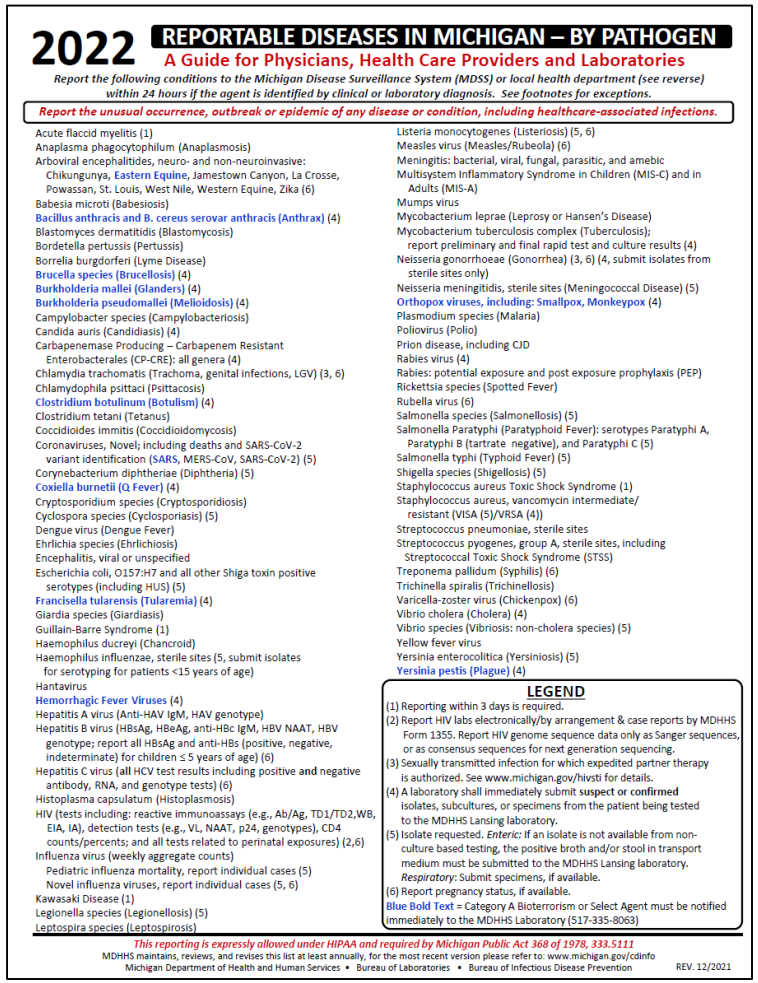
- **Use standard and transmission-based precautions:**
  - For hospitalized patients, use contact precautions
  - For nursing home residents, use contact or enhanced barrier precautions, as indicated
- **Ensure adherence to appropriate hand hygiene practices**
- **Clean and disinfect patient care environment and reusable equipment**
  - Daily and terminal cleaning with **EPA List P** disinfectant effective against *C. auris*
    - Alternatively, a disinfectant on the EPA List K if a List P disinfectant not available
- **Inter-facility communication of *C. auris* status at transfer to another healthcare facility**
- **Conduct surveillance to detect new cases, in collaboration with public health**

https://www.cdc.gov/fungal/candida-auris/c-auris-infection-control.html

NEW for 2022

2022 CP-CRE Surveillance Reporting

- **CP-CRE Case Surveillance**
  - **Required case reporting** to MDSS by healthcare providers and laboratories
  - Carbapenemase producing – carbapenem resistant ***Enterobacterales (All Genera)***
- **CP-CRE Isolate Surveillance**
  - **Required isolate submission** to BOL by laboratories
  - Carbapenemase-producing – carbapenem resistant ***Enterobacterales (All Genera)***



2022 REPORTABLE DISEASES IN MICHIGAN – BY PATHOGEN

A Guide for Physicians, Health Care Providers and Laboratories

Report the following conditions to the Michigan Disease Surveillance System (MDSS) or local health department (see reverse) within 24 hours if the agent is identified by clinical or laboratory diagnosis. See footnotes for exceptions.

Report the unusual occurrence, outbreak or epidemic of any disease or condition, including healthcare-associated infections.

Acute flaccid myelitis (1)
Anaplasma phagocytophilum (Anaplasmosis)
Arboviral encephalitides, neuro- and non-neuroinvasive: Chikungunya, **Eastern Equine**, Jamestown Canyon, La Crosse, Powassan, St. Louis, West Nile, Western Equine, Zika (6)
Babesia microti (Babesiosis)
Bacillus anthracis and B. cereus serovar anthracis (Anthrax) (4)
Blastomyces dermatitidis (Blastomycosis)
Bordetella pertussis (Pertussis)
Borrelia burgdorferi (Lyme Disease)
Brucella species (Brucellosis) (4)
Burkholderia mallei (Glanders) (4)
Burkholderia pseudomallei (Melioidosis) (4)
Campylobacter species (Campylobacteriosis)
Candida auris (Candidiasis) (4)
Carbapenemase Producing – Carbapenem Resistant Enterobacterales (CP-CRE): all genera (4)
Chlamydia trachomatis (Trachoma, genital infections, LGV) (3, 6)
Chlamydophila psittaci (Psittacosis)
Clostridium botulinum (Botulism) (4)
Clostridium tetani (Tetanus)
Coccidioides immitis (Coccidioidomycosis)
Coronaviruses, Novel; including deaths and SARS-CoV-2 variant identification (**SARS**, MERS-CoV, SARS-CoV-2) (5)
Corynebacterium diphtheriae (Diphtheria) (5)
Coxiella burnetii (Q Fever) (4)
Cryptosporidium species (Cryptosporidiosis)
Cyclospora species (Cyclosporiasis) (5)
Dengue virus (Dengue Fever)
Ehrlichia species (Ehrlichiosis)
Encephalitis, viral or unspecified
Escherichia coli, O157:H7 and all other Shiga toxin positive serotypes (including HUS) (5)
Francisella tularensis (Tularemia) (4)
Giardia species (Giardiasis)
Guillain-Barre Syndrome (1)
Haemophilus ducreyi (Chancroid)
Haemophilus influenzae, sterile sites (5, submit isolates for serotyping for patients <15 years of age)
Hantavirus
Hemorrhagic Fever Viruses (4)
Hepatitis A virus (Anti-HAV IgM, HAV genotype)
Hepatitis B virus (HBsAg, HBeAg, anti-HBc IgM, HBV NAAT, HBV genotype; report all HBsAg and anti-HBs (positive, negative, indeterminate) for children ≤ 5 years of age) (6)
Hepatitis C virus (**all** HCV test results including positive **and** negative antibody, RNA, and genotype tests) (6)
Histoplasma capsulatum (Histoplasmosis)
HIV (tests including: reactive immunoassays (e.g., Ab/Ag, TD1/TD2,WB, EIA, IA), detection tests (e.g., VL, NAAT, p24, genotypes), CD4 counts/percents; and all tests related to perinatal exposures) (2,6)
Influenza virus (weekly aggregate counts)
Pediatric influenza mortality, report individual cases (5)
Novel influenza viruses, report individual cases (5, 6)
Kawasaki Disease (1)
Legionella species (Legionellosis) (5)
Leptospira species (Leptospirosis)
Listeria monocytogenes (Listeriosis) (5, 6)
Measles virus (Measles/Rubeola) (6)
Meningitis: bacterial, viral, fungal, parasitic, and amebic
Multisystem Inflammatory Syndrome in Children (MIS-C) and in Adults (MIS-A)
Mumps virus
Mycobacterium leprae (Leprosy or Hansen's Disease)
Mycobacterium tuberculosis complex (Tuberculosis); report preliminary and final rapid test and culture results (4)
Neisseria gonorrhoeae (Gonorrhea) (3, 6) (4, submit isolates from sterile sites only)
Neisseria meningitidis, sterile sites (Meningococcal Disease) (5)
Orthopox viruses, including: Smallpox, Monkeypox (4)
Plasmodium species (Malaria)
Poliovirus (Polio)
Prion disease, including CJD
Rabies virus (4)
Rabies: potential exposure and post exposure prophylaxis (PEP)
Rickettsia species (Spotted Fever)
Rubella virus (6)
Salmonella species (Salmonellosis) (5)
Salmonella Paratyphi (Paratyphoid Fever): serotypes Paratyphi A, Paratyphi B (tartrate negative), and Paratyphi C (5)
Salmonella typhi (Typhoid Fever) (5)
Shigella species (Shigellosis) (5)
Staphylococcus aureus Toxic Shock Syndrome (1)
Staphylococcus aureus, vancomycin intermediate/ resistant (VISA (5)/VRSA (4))
Streptococcus pneumoniae, sterile sites
Streptococcus pyogenes, group A, sterile sites, including Streptococcal Toxic Shock Syndrome (STSS)
Treponema pallidum (Syphilis) (6)
Trichinella spiralis (Trichinellosis)
Varicella-zoster virus (Chickenpox) (6)
Vibrio cholera (Cholera) (4)
Vibrio species (Vibriosis: non-cholera species) (5)
Yellow fever virus
Yersinia enterocolitica (Yersiniosis) (5)
Yersinia pestis (Plague) (4)

LEGEND

(1) Reporting within 3 days is required.
(2) Report HIV labs electronically/by arrangement & case reports by MDHHS Form 1355. Report HIV genome sequence data only as Sanger sequences, or as consensus sequences for next generation sequencing.
(3) Sexually transmitted infection for which expedited partner therapy is authorized. See www.michigan.gov/hivsti for details.
(4) A laboratory shall immediately submit **suspect or confirmed** isolates, subcultures, or specimens from the patient being tested to the MDHHS Lansing laboratory.
(5) Isolate requested. *Enteric:* If an isolate is not available from non-culture based testing, the positive broth and/or stool in transport medium must be submitted to the MDHHS Lansing laboratory. *Respiratory:* Submit specimens, if available.
(6) Report pregnancy status, if available.
Blue Bold Text = Category A Bioterrorism or Select Agent must be notified immediately to the MDHHS Laboratory (517-335-8063)

This reporting is expressly allowed under HIPAA and required by Michigan Public Act 368 of 1978, 333.5111

MDHHS maintains, reviews, and revises this list at least annually, for the most recent version please refer to: www.michigan.gov/cdinfo
Michigan Department of Health and Human Services • Bureau of Laboratories • Bureau of Infectious Disease Prevention REV. 12/2021

2022 Brick Book and CD Lists

NEW for 2022

2022 CP-CRE Case Reporting to MDSS

Physicians and laboratories must report cases of CP-CRE:

- Healthcare record contains a diagnosis of **Carbapenemase-producing Carbapenem-resistant Enterobacterales (CP-CRE),** with KPC, NDM, OXA-48, IMP, VIM or a novel carbapenemase
- **Any Enterobacterales** isolate demonstrating carbapenemase production by a phenotypic method
- **Any Enterobacterales** isolate with a known carbapenemase resistance mechanism by a recognized molecular test
- If testing for carbapenemase production or carbapenemase resistance mechanism was not conducted or reported, **any Enterobacterales** isolate with a minimum inhibitory concentration of ≥4 mcg/ml for meropenem, imipenem, or doripenem, or ≥ 2 mcg/ml for ertapenem by antimicrobial susceptibility testing
    - *Morganella, Proteus, Providencia* spp. may have intrinsic resistance to imipenem. Only those isolates that are resistant to 1 or more carbapenems other than imipenem should be reported.

NEW for 2022

2022 CP-CRE Isolate Submission to BOL

Laboratories must submit isolates of CP-CRE:

- **Any Enterobacterales** isolate demonstrating carbapenemase production by a phenotypic method
- **Any Enterobacterales** isolate with a known carbapenemase resistance mechanism by a recognized molecular test
- If laboratories are unable to detect CP-CRE (i.e., cannot test for carbapenemase production or carbapenemase resistance mechanism), **any Enterobacterales** isolate with a minimum inhibitory concentration of ≥4 mcg/ml for meropenem, imipenem, or doripenem, or ≥ 2 mcg/ml for ertapenem by antimicrobial susceptibility testing
    - *Morganella, Proteus, Providencia* spp. may have intrinsic resistance to imipenem. Only those isolates that are resistant to 1 or more carbapenems other than imipenem should be reported and submitted.

Questions?

Previous NHSN Group User Presentations available at:

https://www.michigan.gov/hai

Next Meeting

April 27th at 10AM